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ABSTRACT

A vital aspect of performance measurement is the assurance that the service provided by the library or information service is valued by the users. Profiles of information use can help in the analysis of performance at a more detailed level than is normally practiced. The quality assurance toolkit described in this paper was designed to facilitate performance improvement for medical staff users of library and information services. The main sections of the toolkit cover assessment of user needs, information service provision, and focus on service outcomes. Each section follows a similar pattern: nature of evidence sought; supporting research evidence; and data required. Checklists of questions help identify the evidence that should be gathered, and toolkit users are directed to appropriate survey tools. The quality assurance toolkit is a set of guidelines and methods to help information professionals find evidence for the effectiveness, impact, and value of their service, and to use that evidence to find ways to improve the service. The evidence and targets in the toolkit relate to library service in the medical field, but many of the questions and methods can be adapted for any library and information service which serves distinct user groups and where benefits of use need to be assessed. (SWC)

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Deriving a Quality Assurance Toolkit from the Outcomes of Information Use

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Deriving a Quality Assurance Toolkit from the Outcomes of Information Use

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Introduction

A vital aspect of performance measurement is the assurance that the service provided by the library and information service is valued by the users. Many performance measurement tools attempt to gauge customer satisfaction but services that are 'satisfactory' may not in fact be providing a service that is truly useful as such satisfaction measures depend on the expectations of the user which may be low. In the Value project (Urquhart and Hepworth, 1995 [a]) the value of a library and information service was measured in terms of outcomes of information use, ie. would the information make a difference to decisions made at work? As the users studied were clinicians (medical staff in hospitals and the community) clinical decision-making was the focus of the project. As clinical decisions made about patient care affect patient care outcomes the value of a library and information service, expressed in terms of benefits to clinical decision-making, can be related to organisational objectives for improved patient care.

Study of the value placed on information and how that information is actually used provides a basis for an audit approach which is firmly based on the users, their information needs and patterns of information use. The quality assurance toolkit (Urquhart and Hepworth, 1995 [b]) which was derived from the findings of the Value project is aimed at performance improvement, not as a means in itself but for the clinician users of the library and information services. A more effective library and information service should thus contribute to more effective patient care.

Tracking the Value of a Library and Information Service

> '. . .there is no point in deciding where your business is going until you have actually decided with great clarity where you are now'
>
> John Harvey Jones (1994)

For clinician users the 'business' will cover information needs for patient care and also continuing education and research. Information for present patient care needs will usually be associated with immediate outcomes for patient care. However, information for present continuing education and research needs is less likely to be associated with immediate outcomes for patient care. Outcomes do have to be judged subjectively by the user and those outcomes concern present and future clinical decision-making.

In the Value project over 700 requests were tracked. These requests included interlibrary loan requests, end-user searches and mediated searches at 11 hospital sites in two regions of the UK. The hospital sites were chosen to give a good cross-section of types of hospital setting and library service. The clinicians were asked not just whether the information would be - or was - valuable to clinical decision-making, but also how it was valuable, and which categories of clinical decision-making would be affected.

The results showed quite emphatically that information provided by NHS library and information services would or did affect clinical decision making. 89% of the clinician respondents agreed that the information obtained would affect one or more categories of clinical decision-making. The questionnaire survey was followed up by selective interviews which provided case study evidence of the way information contributed to clinical decision-making.

Profiles of information use can help in analysis of performance at a more detailed level than is normally practised. The Value project showed that outcomes of use varied according to user group, categorised by stage of postgraduate medical training. Career stage affects the outcomes of use in two ways. First, the stage affects the type of clinical decision-making priorities, and secondly, the career stage affects the gross valuation placed on the information provided. Not surprisingly, the most junior registered doctors value the information provided more as they are still on the steep slopes of the

learning curve. Another interesting finding was the high valuation placed on information by the group of remote users of MEDLINE, the users of the BMA (British Medical Association) Dial-Up MEDLINE service. Although this group is likely to be more information conscious (as they have made the effort to kit themselves out with the necessary hardware and software), the value of information on the desk-top, whether at home or in the office, is clearly appreciated.

Evaluating Infrequent Use

Any estimation of the performance or value of a library and information service should not neglect the infrequent user or the 'non-user'. In the Value project, the surprising finding was the contrast between the high valuation the junior doctors (senior house officers) placed on information provided and with their low level of use of services that would provide up-to-date information on patient care. Analysis at this level of detail provides a better indication of performance failings than would be possible using gross statistics of use alone. In common with other 'infrequent user' groups among clinicians, the senior house officers not only have problems accessing services, but also seem unaware of services that are available.

Outcomes-based Audit

The analysis of the outcomes of information provision, combined with a survey of the patterns of information need and use among a random sample of clinicians (users and 'non-users' of the library and information services) provided the underpinning evidence for the quality assurance toolkit - having established that the information provided does have a value, that it does bring benefits, that knowledge gained can contribute to improvements in information provision. The audit cycle of needs - provision - outcomes is a circular process where the starting point can be at any stage. The main sections of the toolkit cover Assessment of user needs, Information service provision and Focus on the service outcomes (including targeting of services). Each of the topic sections follows a similar pattern: Nature of evidence to be sought (what to find out); Supporting research evidence (the reasons why evidence should be gathered) and Data required. Checklists of questions help to identify the evidence that should be gathered, and toolkit users are directed to appropriate survey tools, based on those used and tested in the Value project

Toolkit Examples

The supporting research evidence included the following findings:

- Research and publication purposes were involved to some extent in 55% of information service requests and searches.
- Information needs and patterns of information use vary with the type of post held by the clinician and their career point.

The relevant checklist questions include:

- Are the following details obtained at registration: grade of post, type of post (research, GP training etc.) contract term?
- Would it be possible/useful to arrange a survey of the purposes of information need among users and non-users (eg. to assess how well the service is performing in respect of purposes such as clinical care, education, research . . .)?

If the answer to the latter question is 'Yes' the suggested method is a critical incident type survey which was used in the Value project. A one-page questionnaire was sent out once a week for four weeks to a random sample of clinicians asking them to think of one occasion during that week when they had needed information for patient care, teaching or continuing education. They were asked to tick categories for purpose, sources tried and the degree of success obtained. The response rate for the Value project was 46% overall, and 69% of the sample replied at least once.

Audit Survey

The Value project included an audit survey of around 35 UK libraries serving clinicians. This survey provided quantitative data (for a three-month period) on who was using the service, which services were being used, the profile of use for certain user groups, and the percentage of potential clinician users who did use the service. The main phase of the project had indicated the possible problem areas and the audit survey provided the quantitative data which indicated, for example, the level of use that might be expected for particular user groups. Although all the libraries surveyed collect statistics for aggregate use, very few could profile use by individuals and groups.

The audit survey provided targets for levels of use of the library and information service for certain user groups and certain services. These should be regarded as initial benchmarks only, but they do

Figure 1

TARGETS FOR ACTIVE USE

Group or activity	Medium site (100-199 acute medical staff)
Acute medical staff: percentage active use	55%-65% (minimal) >70% (maximal)
SHOs (senior house officers) - percentage active use	60%-75% (minimal) >80% (maximal)

RESULTS OF AUDIT SURVEY

Group or activity	Range found
Acute medical staff: percentage active use	40%-71%
SHOs: percentage active use	42%-96%

provide indicators by which information services can assess their performance against that of other services. For example, see Figure 1.

Some library and information services do already target Senior House Officers (SHOs) and are rewarded in time by a percentage active use that is nearly 100%. Active use was defined for the purposes of the project as use of one (or more) of the following services: loans from stock, requests for material not held locally (interlibrary loans), CD-ROM end-user searches, and mediated searches. Borrowing one book in that three-month time period surveyed did make a user an 'active user'. The audit survey complemented study of those easily measured services with an activity sampling exercise which helped to define the 'browsing' use of the service eg. consulting current journals, or reference books.

Targeting Services

Resources for library and information services are finite, and the problem today is to deal with real cuts. Better services for a neglected group of users may mean that other services have to be controlled or re-organised to make the most effective use of human and material resources. Librarians often operate in isolation and rigid mindsets about operations and procedures can deflect attention from required changes to meet alterations in user patterns. The checklist questions on targeting of services encourage reflection about the purposes of the service and the lateral thinking that may be required to provide a good service when budget constraints appear to limit the type of service deemed desirable. Checklist questions ask whether certain services can be costed, and whether benefits can be assessed not just for the user, but whether there are organisational benefits. Provision of a particular information service may give useful clues about the information behaviour of the user group, clues that will feed into improved provision of other services. There may also be training benefits for the information service staff providing these services.

Sometimes services do have to be controlled or rationed in some way. Charging for some services is an emotive issue, but the alternatives, usually rationing or low-profile advertising of services, are often less fair on the occasional user, who might be the very person who needs to use the information service. It is therefore important for the library and information service to be able to answer checklist questions about trivial use of some services by an active minority.

Resourcing and Performance

While services can be adjusted to match user needs, there is still a need for resources, and some librarians would argue that performance measurement is only worthwhile if the resources are sufficient. In the audit survey the funding levels for journals subscriptions were considered alongside the indicators for active use, to see whether poor resourcing would result in poor performance (judged by active use) and better than average resourcing would correspond to better than average performance (judged by active use). The results were mixed. Although better funding was generally associated with better performance there were some variations. Of the six libraries which had below average resourcing for journals, two were performing better than might be expected for active use. At the other end of the scale, above average resourcing

did not guarantee an above average performance. Clearly the information professional in charge does make a difference, and can add value to resources.

Conclusions

The toolkit is essentially a set of guidelines and methods to help information professionals find evidence for the effectiveness and impact of their service. There is no obligation to use the whole toolkit at once, or in any particular order. The aim was to produce a quality assurance toolkit which librarians could use themselves, creatively, to secure evidence that the information service does have an impact and value, and to use that evidence to find ways of improving the service. Certainly the evidence and the targets relate to libraries serving doctors but many of the questions and methods could be adapted for any library and information service which does serve distinct user groups and where benefits of use need to be assessed. The Value project is to be complemented by a study of the effectiveness of library and information supply to nurses, midwives and health visitors, and a similar toolkit will be produced.

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